ON THE

DISPLACEMENTS OF THE UTERUS.

BY

J. MATTHEWS DUNCAN, A.M., M.D.,

F.R.C.P.E.,

LECTURER ON MIDWIFERY, PHYSICIAN-ACCOUCHEUR TO THE ROYAL DISPENSARY, EDINBURGH, &c.

EDINBURGH:

SUTHERLAND & KNOX, GEORGE STREET.

LONDON: SIMPKIN, MARSHALL, & CO.

MDCCCLIV.

The following Chapters appeared in the *Edinburgh Medical and Surgical Journal* for April 1854. They are now republished almost as they originally stood. The author hopes they may be of some service in contributing to the attainment of correct opinions on a subject which at present occupies much of the attention of the profession.

CONTENTS.

	Page
Position of the Uterus,	7
Ligaments and Relations of the Uterus,	10
Mobility and Movements of the Uterus,	14
Mechanism of Displacement,	17
Results of post-mortem examination in cases of Displacement,	20
Causes of Displacement,	22
Symptoms of Displacement,	27
Diagnosis of Displacement,	31
Treatment of Displacement,	33

ON UTERINE DISPLACEMENTS.

The displacements of the uterus may be divided into two classes, according to the degree or amount of change of place. When this is to such an extent as to bring the organ into close proximity with the floor of the pelvis, or to expel it from that cavity altogether, then the affection is generally not described, in the ordinary parlance of the day, as a displacement, but as a prolapsus or procidentia. The former term is applied to those minor alterations of position which the uterus undergoes while within the cavity of the pelvis, and not prolapsed upon its floor. These changes in position may affect the entire organ or only a part of it. Under the name of uterine displacement, then, we include all the alterations of position of parts of the organ in regard to the rest of it, minor alterations of position of the whole organ, and the combinations of these changes. It must be understood that the term displacement, used thus nosologically, implies only changes taking place in the organ when it contains neither a polypus or ovum in its cavity, nor fibrous or other tumour in its walls, and when it is not forced to its extraordinary position by adhesions or by tumours or other disease in neighbouring parts.

Displacement, as thus limited and defined, is separated from prolapsus and procidentia, not only by the evident difference in position, but also by pathological differences to which we shall merely allude. In these latter diseases the rectum

and bladder are necessarily simultaneously displaced, the vagina is more or less inverted; the pelvic fascia and other structures forming the floor and closing the outlet of the pelvis, are involved in the disease equally with the uterus.

Congenital displacements are here also excluded, being malformations and not secondary accidents. With these we include those cases of uterine distortion supposed to result from morbid involution of the uterus after delivery, the walls of the organ not being equally reduced in the absorption going on at that time.

Displacements of the uterus, although known and described by the most ancient authors, did not attract much attention from practical physicians in our days till the publication of the researches of Schmitt, Schweighauser, Boivin, Bazin, and others. In 1843, Dr Simpson's paper on this subject was read before the Medico-Chirurgical Society. He then pointed out the great frequency of displacement, and shewed how it could be diagnosed and rectified by means of the uterine bougie. Since this time the subject has been unremittingly before the profession. But the greatest difference of opinion still prevails as to the true pathology and proper treatment of this class of cases. The object of the following chapters is to attempt to throw some light upon the physiology and pathology of uterine motions and displacements, with a view to the establishment of correct general principles of treatment.

POSITION OF THE UTERUS.

Anatomists and obstetricians, in describing the uterus, generally assign to it a certain fixed position, and proceed to enumerate a series of ligaments to which they ascribe the function of maintaining it in this position. In discussing the question of what is a displacement and what is not, I shall have occasion to shew that difference of opinion exists as to what should be called the healthy or natural position. And there can be no doubt that the uterus has no fixed natural position, but enjoys much freedom of motion, and assumes different attitudes in its different conditions, and in the different conditions of the neighbouring organs. It is not so free and mobile as many of the neighbouring viscera, seeing that it has firm connection to the vagina and bladder, but at the same time its other attachments are such as to permit of extensive movement. The truth is that the uterus, if fixed and immoveable,[1] is *de facto* in a morbid condition, and generally therefore incapable of performing its chief function.

The position of the uterus is behind the bladder, in a plane anterior to the rectum, which lies partly behind it. It is, as it were, inserted upon and continuous (structurally, as well as anatomically) with the tube of the vagina. It lies generally near the mesial line, and more or less in the axis of the pelvis, and having the fundus near the plane of the pelvic brim. In the dead subject, the organ is generally found placed in various degrees of obliquity in relation to the axis of the brim. But there is great variety of position, according to the state of the neighbouring organs. The most common

[1] The uterus may be morbidly fixed in position by adhesion of its serous investment to other parts or organs, by inflammatory or malignant deposits in the structures of and surrounding the cervix, and by tumours of any kind situated in or near it.

position is probably one of what would by some be called anteversion; but this depends on the empty state of the bladder. It is necessary to add that the position after death is not a good criterion of the ordinary position during life, as so much depends upon the muscular tonicity and vascular turgescence which disappear with life.

But while we discard the opinion that the uterus has a fixed normal attitude and position, it will, nevertheless, be useful in the description of the motions and displacements of the organ, to adopt a certain standard the deviations from which can be easily described in words. And for this purpose, we cannot do better than adopt any of the ordinary statements on this subject. In his work on Midwifery, &c. (p. 54), Burns describes the uterus in the erect posture as corresponding, nearly, with the axis of the brim of the pelvis, and, consequently, forming an angle more or less obtuse with the vagina, in which the os uteri is felt directed backward. Boivin and Dugés (*Traite des Maladies de l'Uterus*, p. 4) state, that the womb has its long diameter nearly in the same direction as the axis of the superior strait; its anterior surface looking downwards and forwards; the posterior upwards and backwards; the fundus upwards and forwards; the external orifice or os tincæ downwards and backwards. Mr Wilson, in his *Anatomists' Vademecum* (p. 618) describes the uterus as having the base directed upwards and forwards, and the apex downwards and backwards, in the line of the axis of the inlet of the pelvis.

In discoursing, then, upon this subject, we shall assume the *standard position* or site of the uterus to be when it lies nearly in the centre of the true pelvis, with the fundus near the plane of the brim; and the *standard direction* or attitude of the uterus to be when its long axis corresponds nearly with the axis of the brim of the pelvis, or with a line drawn at right angles to the plane of the brim from its centre.

In the sequel we shall attempt to shew that the position of the womb may vary to a great extent, without that variation being in any way to be regarded as a morbid phenomenon. But here it is necessary to point out, that a posterior oblique position, or a slightly retroverted position, is with jus-

tice regarded by many authors as not only not morbid, but as usual and natural, especially in women who have borne children. Astruc[1] describes the position of the uterus as being most natural and advantageous when it is in a line with the vagina. In his work on the Gravid Uterus, Burns[2] says, that in the unimpregnated state "the top of the uterus lies backwards towards the rectum; whilst its mouth is directed forwards." In more general terms, even M. Valleix[3] says, that "it is incontestable that a certain degree of inclination is perfectly compatible with health." "I am disposed (says Dr Churchill[4]) to think that the uterus, especially in women who have had children, has a wider range of position (without inconvenience) than we suppose."

[1] Art of Midwifery, p. 13.
[2] On the Gravid Uterus, p. 8.
[3] Deviations Uterines, p. 167.
[4] Diseases of Women. 1850, p. 203.

LIGAMENTS AND RELATIONS OF THE UTERUS.

For rightly appreciating a description of the motions and displacements of the uterus, it is necessary to have a distinct comprehension of the various means by which it is maintained in its position and direction;—and, while authors are but little at variance in regard to the nature and arrangements of the tissues involved, they offer a great variety of opinions as to the part taken by one or other of these structures in this function. In the subsequent discussion of this subject, we believe sufficient reason will be found for maintaining that the vagina[1] is the principal instrument in deciding the position of the uterus *quoad* depression; whilst its attitude or direction are determined by the surrounding viscera, including the vagina, by its own condition mechanically considered, and partially by the state of the so-called ligaments.

The smaller end of the pyriform uterus is, as it were, inserted into the upper part of the contractile tube of the vagina. This tube at its upper part posteriorly is unsupported for a small and variable space, except by peritoneum. In front it is connected with and supported by the bladder, and similar connection and support is afforded to the uterus, with which it is united along the anterior surface of the cervix. On either side are the alæ vespertilionis, duplicatures of peritoneum, connecting the uterus with the lateral walls of the pelvis. From the two extremities of the fundus the round ligaments, at first inclosed in the broad ligaments, and then curving downwards and forwards, beneath the peritoneum of the pelvic walls, proceed to pass through the inguinal rings. They are composed of contractile fibrous tissue, similar to that

1 "The firmness and structure of the vagina support the womb."—Anat. and Physiol., &c., by John Bell. Vol. iii., p. 419.

of the uterus, along with vessels and nerves. There may also be described four cervical ligaments consisting of peritoneum, inclosing fibrous contractile tissue, two proceeding forwards towards the bladder, and two backwards towards the rectum. These are seen distinctly when the parts are stretched and forcibly separated. The uterus resting thus upon the vagina, is supported in front by the bladder, and behind by the rectum, having on either side the broad ligaments and ovaries, and is covered above by the folds of small intestine, coils of which occasionally pass between it and the other neighbouring organs. Lastly, there must be added the pelvic fascia, which, lying under the peritoneum, is reflected from the walls of the true pelvis to the bladder and rectum in front and behind, and between these, to the upper part of the vagina, proceeding upwards from which it is lost upon the uterus. This structure has probably much to do with prolapsus and procidentia of the uterus, but can exert little influence on the deviations now under consideration.

In thus shortly enumerating the anatomical relations of the uterus, we have, according to custom, used the term ligament as applied to certain parts. But the term is unfortunately, not to say incorrectly, used, as it tends to mislead the student as to the nature and functions of the structures so denominated. These so-called ligaments have neither the structure nor functions of parts ordinarily so named, and instead of binding the uterus to a certain site, they will be found to afford scarcely any resistance to displacement of the uterus at all, unless when that arises from sudden and violent causes. The attachments of the uterus to the vagina and bladder are its chief ligaments, whilst the ligamenta lata and rotunda have only in a very slight degree this function. On the contrary, they follow the uterus in all its motions, mould themselves over it in its natural or morbid enlargements, and present but little obstacle to retroversion or anteversion by the sound, or to depression by volsella, for surgical purposes.[1] They might be more

[1] We quote the following illustrative remarks from Bichat's Anatomie Generale. "On voit très-souvent ces membranes abandonner et recouvrir tour

properly called gubernaeula than ligaments, as the ligamenta rotunda have probably some influenee upon the motions of the uterus. especially in early pregnancy; and the broad ligaments, although they do not prevent the motion of the organ, contribute mainly to these motions being confined eliefly to the antero-posterior direction. Displacements of the unimpregnated uterus have been ascribed by Morgagni, Stoll, Saxtorph, and others,[1] to relaxation of these parts, but this relaxation (or rather expansion) is undoubtedly not the cause but the effect of the displacement. The expansion of the peritoneal investment of the bladder might as appropriately be brought in as the cause of retention of urine, or the development of the uterns in pregnancy, as the result of the relaxation and expansion of the ligamenta lata and investing peritoneum.[2] Further, the fibrous tissue eontained in the round ligaments, small in quantity as it is in the unimpregnated state, and having its peculiar physiological properties, can have very little influence.[3] Like all

à tour leurs organes respectifs; ainsi les ligamens larges, très-éloignés de la matriee dans l'état ordinaire, lui servent de membrane séreuse pendant la grossesse. L'intestin qui se distend emprunte du mésentère une enveloppe qui le quitte lorsquil se eontraete. L'epiploon est tour à tour, comme l'a très bien observé M. Chaussier, membrane flottante dans le bas-ventre, et tunique de l'estomac. Souvent l'enveloppe péritonèale de la vessie l'abandonne presque en totalité. Le sac herniaire de ees énormes dèplacemens des viseeres gastriques, n'a-t-il pas primitivement servi à tapisser les parois de bas-ventre? ete. . . . . C'est toujours une tissue lâehe, faeile à se distendre en tous sens, qui sert de moyen d'union, et jamais un système vasculaire sanguin, comme dans la plupart des autres adhérenees." (Tome ii., p. 550.) Further on (p. 564), in discussing the properties of the serous system, he aseribes its extensibility to three eauses; 1*st*, tho development of folds, as of the broad ligaments in pregnancy, &c., &c.; 2*d*, the displaeement of the membrane from one part to another; and, 3*d*, distension or real expansion. The causes of its contraetility eorrespond to those of its extensibility.

[1] Diet. de Med., t. xxx., p. 375. See also Davis' Obst. Med., vol. i., p. 524; Boivin and Dugés, Mal. de l'Uterus, p. 86, &e.

[2] "The uses aseribed to the ligaments have been to support the uterus from sinking too deep into the pelvis, and to steady it and direct it in its ascent during pregnaney. But whatever good they may do in the latter operation, they are eertainly unfit for the former."—Anat. and Physiol., &c. By John Bell. Vol. iii., p. 421.

[3] "Hors le temps de la grossesse, les ligamens ne sont d'aucun usage à la matrice."—Delcurye, Traité des Aecouchemens. Par. 127.

muscular tissue of organic life it enjoys great extensibility by slight causes, and its power of contraction is called into play, in ordinary circumstances, only by the natural physiological stimuli. The functions of this tissue are probably in a great measure in abeyance, like the corresponding tissue of the uterus, except during pregnancy, when it undergoes a large development.

The influence of these parts can be to some extent illustrated by experiments on the dead subject. And in these it is found that in the lesser displacements downwards of the womb, the ligaments are not at all put upon the stretch, and such displacements are not facilitated by the division of the so-called ligaments. The well-known experiments of Burns, Ashwell, Kiwisch, Tanchou, and others, on the effect of artificial depression of the uterus upon the surrounding structures, confirm this statement.

MOBILITY AND MOVEMENTS OF THE UTERUS.

But while, as already stated, anatomists and obstetricians generally fix upon a certain position of the unimpregnated uterus as its own and natural one, they are not ignorant of the mobility of the organ. Cruveilhier[1] and numerous other writers correctly describe it as floating in the cavity of the pelvis. This fact is well known to the obstetrician, for in making a physical examination of the upper part of the body of the organ through the hypogastrium with one hand, whilst he fixes the cervix and protrudes the organ as much as possible above the brim of the pelvis with the other, he finds it to float about and escape from the external hand on the smallest pressure, and this in every direction. And under such circumstances it may be necessary for rendering such investigation satisfactory, to fix the uterus by introducing a sound into its cavity. But the organ is thus moveable not only by external influences, but also by slight disturbances of the mechanism of its own equilibrium. Churchill,[2] for instance, mentions a case in which the physiological engorgement of the uterus in the menstrual molimen was enough to produce retroversion of the organ ; and if this temporary cause was sufficient, how much more effect will be produced by more persistent and serious pathological changes ?

The organ is not only mobile, but also constantly in motion. It is well known that the uterus is liable to be suddenly and extensively moved by accidental causes ; for example, the sudden and temporary prolapsus or even procidentia induced by jumping from a height ; the motions also caused by violent coughing or sneezing, are such as

[1] Anatomy of the Human Body. Engl. Trans., vol. i., p. 618.

[2] Diseases of Women, p. 289.

in some women to produce involuntary dejection of urine at each burst of cough. In women labouring under aggravated procidentia, this is well illustrated by their power of expelling the replaced organ by a slight cough, even when lying in the recumbent position. The effort also of straining depresses and displaces the uterus to a considerable extent. This may be effected at desire, and happens at every effort at stool.

In addition to these occasional and accidental movements it has to undergo continual slight movements, from the motions of the various folds of small intestine which cover and surround its fundus. Its position is liable to be changed also by the state of the rectum as to repletion or vacuity; and partly from the mere presence of this bowel in the left side of the pelvis, partly from its frequent dilatation by its proper contents, the uterus is very generally found slightly displaced to the right of its standard position, forming an obliquity from right to left. But the most important part is taken in these movements by the bladder, to which we have seen the uterus is attached for at least a fourth of its length anteriorly. In its dilatation it carries the uterus slightly upwards, and pushes it backwards; in its contraction it carries it forwards and downwards, into a direction of considerable anterior obliquity or partial anteversion. In many females these changes can be easily made out. We have already noticed the occasional effect produced by coughing and sneezing, and have here merely to remark that a similar but greatly slighter change is effected by respiration, the amount of which will vary with the position of the female, with the tension or relaxation of the abdomen, the state of the pelvic viscera, &c. Lastly, it is well known and easily ascertained that the position of the female affects the position of the uterus. Capuron (*L'Art des Accouch.*, p. 28) describes the direction of the uterus as being oblique, and variable according to the attitude of the woman. "In the erect position it is inclined towards the pubis, and in supination towards the sacrovertebral angle; when the body is seated it approaches the perpendicular; it is scarcely ever carried to-

wards the right or left, but sometimes it turns upon itself, so that its surfaces look more or less to either side." In the recumbent posture, also, the uterus assumes a different position, according as the woman lies on her back or on her right or left side. As we have before stated, the extent of these various movements will be modified according to the state of the pelvic viscera. In a female whose parts are all weakened and relaxed by repeated pregnancy or by disease, they will be most extensive, whilst in a healthy female who has not been subjected to these or other causes of relaxation, these motions may be almost null.

MECHANISM OF DISPLACEMENT.

We have already said that the vaginal tube is the chief agent in maintaining the uterus in its ordinary position. When this support is injured by relaxation, the uterus becomes depressed in the pelvis. Its own weight is sufficient to invert the upper part of the relaxed vagina, or to cause it to collapse. The uterine ligaments have no influence in preventing this, as they are not at all put upon the stretch by depression, to the extent of an inch or an inch and a half. Increase of weight of the womb may also be sufficient to cause displacement, without relaxation of the vagina. It is plain, then, that in the causation of these changes, there are two principal elements; first, the strength of the support; and, secondly, the weight of the body to be supported.

When the uterus is simply depressed or displaced downwards, it may maintain its standard attitude or inclination. Generally it does not, but assumes an inclination corresponding to the axis of the part of the pelvis in which it is lying. Thus in the minor descents of the uterus, which we are specially considering, it becomes somewhat retroverted from its standard attitude, leaving the axis of the brim and entering that of the cavity. This change is well illustrated in cases of prolapsus and procidentia, in which the uterus, in traversing the pelvic canal, does so, with its axis, in a line of direction corresponding nearly to the circle of Carus.[1] We have already noticed that some authors describe this posterior obliquity of the uterus, from its assumed standard attitude, as being normal, and when we remember that almost all women who have borne children, or suffered from uterine disease,

[1] Meigs—Females and their Diseases, p. 148.

have a certain amount of relaxation of the vagina, the opinion is easily accounted for, and is undoubtedly well founded.

Supposing the womb to be in this position and attitude of slight descent, and itself increased in weight, or subjected to weight or pressure from above, it may according to circumstances be further displaced in regard to obliquity, without farther depression, and anteversion or retroversion be the result.

Injury to the chief support of the uterus is not the only cause of displacement. The uterus may be increased in weight, or subjected to pressure. Under such circumstances we have already said that descent may be produced without morbid relaxation of the vagina. But in these conditions, whether the uterus becomes slightly depressed in the pelvis or not, the effect of the increased weight of the organ, or of pressure on it, is then to change its direction. It becomes more or less anteverted or retroverted. Anteversion will probably take place if the greater weight is in the anterior part of the organ. But it is not so frequent, and rarely so complete as retroversion. Many authors have found a most convenient explanation of this fact, in increased weight of the posterior wall alone of the uterus, caused by chronic inflammation there. But this pathological hypothesis, although sufficient, is not necessary. The lower third of the anterior wall of the uterus is supported by connection with the bladder, and the repletion of this organ tends to obviate the anterior obliquity of the uterus. The upper part of the vagina is also strengthened anteriorly by union with the bladder. On the other hand, the posterior wall of the uterus, as well as a considerable part of the adjoining vaginal wall, are quite unsupported by organic union with the rectum. The posterior wall of the uterus is larger thicker, and more prominent than the anterior. In these mechanical peculiarities is found a sufficient explanation of the greater frequency and completeness of retroversion, especially when to this we add the relaxation of the vagina, slight descent of the uterus, and consequent slight posterior obliquity, which almost invariably accompany uterine lesions, and generally precede the occurrence of retroversion. And

it must be observed that the continuance of the cause originally inducing slight anterior or posterior obliquity will always tend to increase the displacement.

The elevated position of the increased weight of the body of the uterus, in cases of hypertrophy and engorgement, is one of the chief causes of versions and flexions. On the other hand, when the increase of weight is in the uterine cervix, there is always displacement downwards, the weight being then situated in the lowest part of the uterus.

Uterine flexions[1] are governed by the same laws as uterine versions. Regarded mechanically, they differ merely in the site of the flexion. In versions the flexion is at the top of the vagina. In flexions proper it is in or above the uterine cervix.

In flexions the uterine tissue is often relaxed, the uterus being thus, as it were, unable to support itself. This is the result of long-continued leucorrhœa, or of a morbid involution of the uterus after delivery, or it may occur without apparent cause. This uterine relaxation may frequently be ascertained to exist even during life, by the facility with which the organ is flexed under the examining finger, and especially by the use of the probe. In passing this into the relaxed uterus, it is not necessary to follow the direction of the canal, the uterus unfolding itself under the pressure of the instrument, and adapting itself to it.

When flexion takes place in a distinct form, it is found to occur opposite the os internum. M. Virchow[2] has pointed out how this should be expected to happen from the anterior uterine wall being thinner at this point than elsewhere, and from the peritoneal reflexion at the same part forming a line, at which the uterus unsupported above should bend upon the lower part, which is strengthened by consolidation with the bladder.

[1] The term version implies displacement of the entire uterus, without change of form. Flexion denotes more or less of folding of the body of the uterus upon the cervix.

[2] Verhandl. der Ges. fur Gubertshülfe in Berlin, 1851, p. 81.

RESULTS OF POST-MORTEM EXAMINATION IN CASES OF DISPLACEMENT.

The position of the uterus as observed after death, cannot be held as a criterion of its position during life. The changes which are produced by loss of vitality, besides the mechanical changes that may take place in neighbouring organs, are sufficient to produce important alterations of position; and it is unnecessary to refer to *post-mortem* examination to verify the position ascribed to the uterus, as that can be done during life with the greatest certainty.

In most cases of displacement, a *post-mortem* examination affords no additional information as to the state of the uterus and vagina. The former is found in a healthy state, or more or less enlarged and engorged. In flexions the altered shape of the uterus is in addition to be remarked. The flexion may be in the form of a curve or an angle, more or less acute. In some cases of flexion, as in two which I not long ago examined, the angle of flexion was not at all atrophied. But in many cases, a thinning of the uterine tissue adjoining the angle takes place. This thinning or atrophy is described by Virchow[1] as being sometimes to such an extent that the proper tissue has almost completely disappeared. M. Valleix pretends to have been able to feel, in rectified cases, both of anteflexion and of retroflexion, a fold or plicature of the uterine tissue at this point,—the result of the collapse, as it were, of the atrophied wall, under the weight of the body of the organ.

In examining uteri after death, it must be remembered that there exists naturally a slight anterior curvation of the uterus, which is greater in young than adult females.[2]

[1] Verhandl. der Ges. fur Gubertshülfe in Berlin, 1851, p. 81.

[2] On this subject, see the observations of Boulard, on anteflexion as a normal condition of the uterus before pregnancy.—*Monthly Journal of Med. Sc.*, February 1854, p. 165.

Great difference of opinion exists as to the comparative frequencies of the different displacements. In this question, we have the statements of practical obstetricians and of morbid anatomists. The former are conversant chiefly with those cases which are accompanied by painful symptoms; the latter have an indiscriminate field of observation.

Rokitansky and Virchow, founding on observations on the dead subject, agree in describing anteflexion as being much more frequent than retroflexion; while Velpeau, from his observations, is unable to ascribe to the one a greater frequency than the other. Mayer, on the other hand, has, in hospital practice, observed retroflexions to preponderate in number. But whatever may be the actual comparative frequency of the different displacements, there can be no doubt that the one most commonly coincident with severe symptoms is the retroversion; and that in the course of ordinary obstetric explorations, anteflexion is observed to be one of the most common displacements, excepting, of course, that downwards, which is found in almost every woman who has borne children, or laboured under uterine disease.

CAUSES OF DISPLACEMENT.

In accordance with the views of the mechanism of displacement which we have just enunciated, it will be found that the causes of displacement arrange themselves into two classes, which may be found operative either singly or conjointly. The first class includes all those changes in the upper part of the vagina, or in the uterus itself, which diminish the power of the former as an organ for the support of the latter, and of the latter in maintaining its normal attitude. The second class comprises all those changes which increase the pressure of the womb upon the parts supporting. These may be either changes increasing the weight of the uterus itself, or changes in its neighbourhood, which have the same ultimate effect by causing pressure upon it.

Among the first set of causes are to be found leucorrhœa, childbearing, and the relaxation consequent upon menstruation. The second class includes natural and morbid menstruation, acute and chronic metritis, whether involving the whole organ or only a part of it, and incomplete involution of the uterus after delivery or abortion. To these last must be added the bearing down or tenesmic efforts consequent on various forms of uterine disease, or on constipation, also flatulence and compression of the figure, especially of the abdomen. Elongation or relaxation of the round or of the broad ligaments we merely mention, as, for reasons already given, they are to be regarded as consequences generally of the disease, or if pre-existent to it, can have but a very trivial influence on its production. The only cases, in fact, where relaxation of these ligaments can precede displacement, are those which occur soon after delivery, and at that time the enlargement of the uterus will have immensely more influence than such relaxation, supposing this last to be present.

The first degree of descent, with or without version of the uterus, is familiarly known to all obstetricians as an almost invariable consequence of the relaxation of the upper part of the vagina, and when it is remembered that relaxation is a concomitant of diseases and accidents so ordinary as parturition, abortion, leucorrhœa, and menstruation, it will be evident how common such displacement must be. It is a very frequent statement of authors, that after parturition the uterus is found lower down than before. Indeed, Dr Hamilton, in describing uterine prolapsus, states that few women having a family attain the fiftieth year without some degree of the disease,[1] and this statement he very properly does not limit to simple descent, but includes in it also anteversion and retroversion. The influence of menstruation in relaxing the vagina is well known, as also the increased tendency to displacement from this cause.[2] The artificial withdrawing of blood, as by leeches, from the roof of the vagina, is sometimes followed by similar relaxation of the organ, and I have more than once seen prolapsus induced by too early rising after this operation.

That increased weight of the uterus is a cause of displacement is also proved by clinical facts. The increase of weight of the uterus in early pregnancy, and in cases where its walls or cavity contain tumours, always produces a certain degree of descent, and very frequently also anterior and posterior version and flexion.[3] When in pregnancy retroversion continues till the uterus has acquired such a size as to fill the true pelvis, or if it is suddenly produced at that time, then we have the accident known as retroversion of the gravid uterus. In menstruation, the uterus is by sanguineous congestion slightly increased in weight. In accordance with this we find Meissner,[4] Ashwell,[5] and many authors, describe the uterus as descending in the pelvis at this time. The same

[1] Outlines of Midwifery. Part I., p. 6.

[2] See Ashwell, Diseases of Women, p. 560; also Blundell, Dis. of Women, p. 26.

[3] See Nauche, Mal. prop. aux Femmes, vol. i., p. 106.

[4] Frauenzimmerkrankheiten, th. i., p. 596.

[5] Diseases of Women, p. 560.

cause, with or without the coincident vaginal relaxation, may be the cause of anteversion or of retroversion, as in the case mentioned by Churchill. When the uterus is the seat of chronic or acute inflammation it is also displaced, and this happens whether the inflammation is in the cervix or in the body of the organ.[1] When the inflammatory engorgement is in the cervix the displacement is generally that of simple descent. In his work on uterine inflammation, Dr Bennet[2] has pointed out this circumstance, and adduced an extensive series of illustrative cases. This result of increase of weight in the cervix admits of an obvious explanation on mechanical principles, and it must be remembered that it is facilitated by the relaxation of the roof of the vagina, attending inflammation of the cervix of any severity or duration. When the body of the organ is the seat of the engorgement or inflammation, then the displacement is not so constantly downwards, but the uterus falls backwards or forwards,—in other words, is anteverted or retroverted. This is equally a result of clinical observation with the former, and appears susceptible of a simple mechanical explanation, by pointing out the circumstances in which it differs from the case of cervical enlargement. In the latter there is generally much leucorrhœa and vaginal relaxation ; in the former disease these are less frequent. In the cervical enlargement the increase of weight is below, and will exert its power accordingly; in the hypertrophy or engorgement of the body the increase of weight is elevated, and the womb will therefore tend more to fall backwards or forwards. It falls most frequently backwards, because its posterior wall is largest and most prominent, and least efficiently supported, having no such connection as the lower part of the anterior wall has with the bladder, as well as the same wall of the vagina. For the production of these results it is not necessary to have extensive changes in the cervix or in the body of the womb, for it is known that the

[1] In metritis "souvent l'uterus est deplacé, abaissé ou incliné, en avant, en arriere, ou sur l'un ou l'autre coté."—*Dict. de Med.*, vol. xxx., p. 223.

[2] Prolapsus of the cervix is nearly always the result of its inflammation and enlargement, and not, as generally supposed, of laxity of the lateral ligaments." —*On Inflammation of the Uterus*, p. 305.

natural engorgement of the uterus in menstruation is sufficient to produce descent, or even retroversion.

As I have already stated, numerous modern authors have most conveniently found, or imagined they found, in retroversion posterior chronic metritis, and in anteversion anterior chronic metritis. But in the numerous examples of version and flexion which I have examined, I have never been able thus exclusively to localize the inflammatory engorgement. The enlargement of the uterus is, I have no doubt, in most cases general, and the occurrence of anteversion or retroversion is determined by other circumstances.

The occurrence of anterior or posterior flexions is explained in a similar manner; only in them there is frequently co-existent a ramollissement[1] or flabbiness of the uterine tissue. And in some cases which I have seen, this softening has been the only discoverable cause. I have more than once observed the artificial softening and relaxation of the cervix uteri and upper part of vagina produce complete anteversion, as in cases where this part was dilated by sponge tents for the discovery and removal of polypi.

It is worth while noticing that the depression of the uterus in these various diseases is not only a sign of their presence, but also a circumstance favourable to the easy use of the surgical remedies that may be necessary. And it is a fact strongly illustrative of the views above stated, that as the cervical or general uterine engorgement is removed, the uterus retires in the pelvis to its healthy position. In old age the upper part of the vagina generally becomes contracted, the uterus atrophied and bloodless; and curiously in accordance with the opposite result of contrary circumstances, the uterus becomes much elevated in the pelvis.

The effect of pressure on the womb from above[2] is illus-

[1] "Diminished consistency (says Rokitansky) is not only presented as a relaxation of the uterus accompanied by marasmus, consequent upon the exhaustion induced by parturition, or arising from paralysis of the uterine fibre in puerperal diseases, but it occurs in a distinct form as pulpiness (mareiditas), slight friability or fragility."—*Manual of Path. Anat.*, Sydenham Ed., vol. ii., p. 286.

[2] Under such influence the position of the womb may be changed from one

trated in eases of dropsy, of flatulence, of adjacent tumours. It is also shewn by the marked result of downward pressure by voluntary or involuntary effort. Violent eoughing is suffieient in some women to produee sudden prolapse and involuntary evaeuation of urine. Voluntary straining or bearing down also displaees the womb to a greater or less extent. A familiar illustration of this is the voluntarily induced prolapsus in women liable to this disease. I lately observed a eurious example of retroversion which eould be voluntarily produeed. The woman had long eeased to menstruate, and said she was unable to work on aeeount of violent efforts always producing what she ealled a falling-out of the womb. This statement was noteredited by a physieian who examined her, and with some justiee, as investigation of the ease shewed. The vagina was healthy, the os uteri in its natural situation, as also the body of the organ, at least when the woman was reeumbent. Voluntary bearing down produeed no prolapsus, the healthy vagina preventing this oeeurrenee. But it displaeed the uterus forcibly backwards, and a little perseverance in the straining produced a tumour resembling a vaginal reetocele, but more solid, being the fundus uteri retroverted, and pushing the back wall of the vagina before it through the os vaginæ. A somewhat similar case has lately been reeorded, where the fundus uteri passed through the anus.

displacement to another. Valleix (p. 65) mentions several such cases. In one he found, on the first examination, an anteverted uterus. Some time after, on examining, he found the organ retroverted. The woman died of phthisis. After death the uterus was found not increased in size, mobile, unadherent, and maintained in its retroverted position by a loop of the colon which rested on it.

SYMPTOMS OF DISPLACEMENT.

In this part of our subject we shall not consider the constitutional states which frequently co-exist with uterine displacements, as their connection is only secondary, and an account of them would lead us into numerous details quite foreign to our subject.

Having thus limited our remarks to the local symptoms of displacement, we are arrested *in limine* by the question, Are there any symptoms of displacement? Do the minor displacements if simple and uncomplicated, with other disease in the organ, produce any painful sensations or derangements of function? We have already stated the circumstances giving rise to displacement. Are they the causes or not of the painful feelings and functional derangements connected with displacement? If they are, then displacement is merely a symptom of these states and circumstances. This question has bearings equally upon the symptoms and the treatment of these affections, and will be discussed under both heads. The most different opinions have been entertained on the subject. Many authors agree with Cruveilhier[1] in maintaining that the displacement is of no moment, but that the disease is the uterine engorgement causing it. Others, with Dr Simpson and M. Valleix, defend the contrary opinion. In my mind there is a conviction, based upon the study and observation of the causes, symptoms, and the results of different plans of treatment in these cases, that, as a general rule, displacement of the uterus, be it retroversion or anteversion, retroflexion or anteflexion, or the first stage of descent, is only

[1] "La deviation n'est rien—l'engorgement tout." See Valleix's Deviations Uterines, p. 6.

a symptom of another affection which has pre-existed—that although there may be minor symptoms connected with the displacement alone, yet the chief symptoms are not caused by it, and the main indications of cure are not to be directed against it. This side of the question is maintained by Cruveilhier, Dubois, Velpeau, Bennet, and others.

In fact the great frequency of these minor displacements (as abundantly attested by many authors), and the frequent incidental discovery of versions and flexions in treating women, or examining them for other affections, render it certain that they exist frequently without causing any symptoms whatever, —that they are in fact consistent with perfect health. The so-called cases of displacement are those where, more or less in connection with it, painful symptoms have supervened. That the simple displacement is not the cause of its so-called symptoms appears from considering the almost invariable displacement of the womb in early pregnancy, its enlargement and pressure in every direction, and the same circumstances in cases of uterine tumours, without any symptoms whatever. Moreover, even the prolapsus and procidentia of the womb frequently produce none of the so-called symptoms of the minor displacements, and may be quite harmless, except from the unavoidable secondary distresses consequent on the exposure of the organ.

The symptoms usually ascribed to displacements are variously given by authors according to the nature of the displacement, but these distinctions are seldom observed in nature. The most frequent accompaniment of this affection is pain, variously described as dragging, pressing, tearing, and more or less severe in the lower part of the back, the region of the sacrum, the anus, the vulva, the hypogastrium, or the inside of the thighs. In addition, complaints of bearing down are common. There is sometimes irritability of bladder, frequent calls to make water, sometimes pain at going to stool, and difficulty in passing the evacuations. Aggravation of all these symptoms follows long continuance in the erect position, and accompanies the menstrual period.

These phenomena are described as symptoms also of chronic

metritis, of uterine catarrh, and of the various forms of leucorrhœa, and consequently give us very little assistance in diagnosing the disease, or settling its true nature.

In different cases these symptoms present an endless variety of degrees and combinations. But there are two great classes of cases, the features of which are more marked in nature than we can easily make them in words. In the first the prevailing character is that of relaxation. The vagina is dilated and softened, perhaps partially prolapsed. The rectum is enlarged and partially prolapsed, and almost if not altogether powerless to expel the motions. There is much complaint of pain, which has in great part a neuralgic character. The erect posture cannot be long maintained from its causing increase of the pains and producing the prolapsus of the rectum and vagina, or tendency thereto, inducing also painful irritation and itching of the vulva and perinæum. Such women are generally in very feeble and disordered general health, and not unfrequently have borne large families. They indulge in the recumbent position as the only relief to their sufferings.

In the other class of cases the main characteristic is the engorgement or subacute inflammation of the uterus, which is enlarged and tender to the touch. The ovarian regions and the vagina itself are also painful on being pressed upon. These symptoms are greatly aggravated at times, especially during menstruation, when the tenderness may even simulate peritonitis in the hypogastric region. There is no tendency to prolapse of the vagina or rectum, although there may be hemorrhoidal irritation in the latter. Such cases often have much feeling of bearing down, but the effect of continuance in the erect posture is not so marked or distressing. This condition is not so frequently connected with undermined general health, or with repeated parturition, as the former.

In both these sets of cases many modern obstetricians would see nothing but a version or other displacement of the womb. It appears to us that it is seldom a matter of much moment except as a symptom.

Numerous other symptoms have been attributed to this

affection. Some of these are so rare as not to merit consideration here. Others have no satisfactory evidence in their support. Among these latter are sterility, amenorrhœa, dysmenorrhœa, menorrhagia—states, it must be remembered, frequently connected with chronic metritis, inflammation, and ulceration of the cervix, and other uterine affections which are the common causes and companions of displacement. Lately M. Vallcix[1] has in like manner included leucorrhœa among the symptoms of displacement, because he has observed it diminish after replacement of the organ. These errors it is only necessary to notice.

Although these states and symptoms are neither necessarily connected with, or symptomatic of, displacement in general, it is probable that some of them are occasionally the mechanical consequences of displacement. It thus may happen that the close apposition of the os uteri against the anterior or posterior vaginal wall in retroversion and anteversion, may preclude the admission of semen into its cavity, or the flexion of the cervix, may have the same result by closing the os internum. The flexure of the cervix may in some cases also act in closing the passage against the escape of the secretions of the cavity, whether mucous or menstrual; and the uterine efforts for the expulsion of its accumulating contents, will be called uterine colic in the one case, and dysmenorrhœa in the other.

[1] Deviations Uterines. Paris, 1852. P. 80.

DIAGNOSIS OF DISPLACEMENTS.

The displacements of the uterus are generally recognised with facility on making a tactile examination of the pelvis. In cases of depression or displacement downwards, the os uteri is approximated to the os vaginæ, by the partial inversion or simple depression of the upper part of the vagina, which is at the same time relaxed and dilated. In the recumbent position, especially on the side, the displacement may disappear, and to make sure of its existence it may be necessary to examine the woman in the erect position, and immediately after having been in that attitude for some time. But this is seldom required, as even in the recumbent position the change of place is generally easily felt, or can be produced by voluntary bearing down. The affection must be distinguished from congenital depression of the uterus, or shortness of the vagina. In this last, the uterus cannot be elevated with the finger, and replaced, and the part maintains its unnatural proximity to the os vaginæ, while the organs are in a state of perfect health. Such cases are not very rare.

In different women the length of the vagina varies considerably. The average length in healthy women is about 3½ inches. But in women who have borne children, or are the subjects of uterine disease, the distance of the os uteri from the os vagina is only about 2½ inches.

The flexions and versions of the womb can generally be recognised by a tactile examination. In the versions there is felt through the roof of the vagina a hard body, which can be traced to be continuous with the cervix; according to the position of the fundus, is the position of the cervix and the direction of the os uteri. In anteversions it will look more directly backwards than is natural. In retroversions it will be directed forwards, or the os may even

look upwards and forwards, if the retroversion be very marked. In the flexions the continuity of the body of the uterus with the cervix can be less distinctly traced, a retiring angle being felt between them. The cervix may be in its natural position, or near it; sometimes it is flexed to the same side as the body; it is also frequently displaced in the pelvis, in a direction contrary to the flexion. In both versions and flexions, displacement downwards generally takes place at the same time. In examining for displacements, one hand should be applied externally over the hypogastrium, to depress and fix the uterus by slight pressure. In many women, especially the thin and relaxed, the whole uterus can be distinctly felt between the fingers of the two hands, and the absence of tumours in its walls certainly made out. But in some cases this is impossible, and then the uterine sound may be introduced, if it is ascertained that the female is not pregnant. By this instrument, the advantages of which have been so strongly insisted upon by Dr Simpson, the direction of the uterine cavity can be ascertained to coincide with that of the version or flexion, and by it the uterus can be rectified, and the abnormal arrangement temporarily removed.

By the careful use of these means the displacements of the uterus can always be diagnosed from other conditions with which it is liable to be confounded. These are small tumours in the anterior or posterior uterine wall, or inflammatory indurations felt in or through the roof of the vagina, or cysts or tumours between the uterus and bladder, or uterus and rectum.

The aid of the speculum has been invoked to diagnose displacement. The observation of the difficulty of exposing the os, of the direction of the speculum, of the view obtained of the os, and especially the relative amount of the various surfaces of the cervix exposed in the speculum, will undoubtedly supply indications. But examination by this means alone would give very doubtful results, whilst the examination as conducted without it supplies us with the only trustworthy information.

TREATMENT OF DISPLACEMENT.

In discussing this subject we are met by the question—In cases where the uterus is found displaced, is there any treatment applicable to the simple displacement? Is not the displacement merely a symptom or result of some other morbid change, and ought not the treatment to be directed against the latter? In the case of procidentia, the uterus lying externally is the cause of extreme inconvenience and of suffering to the patient—just as a dislocated shoulder is—and one of the main objects of treatment is to replace it, and keep it within the pelvis. The pessaries used for preventing the prolapse are inimical to the complete recovery of the patient,—that is, to her coming to be able to walk and work without the prolapsus recurring. But the evils attendant upon procidentia are so great as, in many cases at least, to overcome any scruples as to the treatment by pessary, to prevent its recurrence, even at the risk of a failure of complete cure.

We have already stated that in the great majority of cases of the minor displacements under discussion, the dislocation of the uterus goes for very little, and that the disease to be cured is not the change of place in the uterus, but the changes in structure and function that have taken place in that organ and the vagina.[1] In conjunction with these morbid states we frequently observe hysteria, dyspepsia, and various forms of deranged general health, besides various uterine affections which are, to say the least, not necessarily connected with the displacement. These concurrent diseases

[1] This opinion is tersely expressed in the words of M. Cruveilhier—"La deviation n'est rien, l'engorgement est tout;" Ajoutant—"Faites cesser l'un, et l'autre disparaitra spontanément." See Valleix; Deviat. Uter., p. 6.

complicating cases of displacement, as they frequently do, render it difficult to judge what symptoms are to be ascribed to the uterine, and what to the general complaint. And the difficulty does not end there, for the treatment being necessarily directed simultaneously against both conditions, it is difficult to adjudge to the different items of the treatment the different benefits which may have accrued. It is only by a careful observation of the circumstances of numerous cases, and of the results of different modes of treatment, that the true therapeutics of displacement can be arrived at.

The only treatment for the mechanical phenomenon of displacement is the rectification of the organ. This it has been proposed to effect in various ways. Many different vaginal pessaries have been proposed, especially by French and German obstetricians. Some have been intended to lie in the rectum, to prevent the motion of the cervix backwards in anteversion, and of the body of the uterus in retroversion. Others have been placed in the vagina, in front of or behind the cervix, to prevent its displacement. Others have been so formed as to seize the cervix (in a cup and ball fashion), and maintain it *in situ*. None of these has, however, come into use in this country, as, indeed, none of them deserved. A discussion upon their merits would occupy too much space, and I shall therefore pass them by with this remark, that they not only fail in curing, but also in fulfilling the indication of replacement. The only effectual instrument for maintaining the uterus in its position of replacement is the intra-uterine pessary of Dr Simpson. The uterus is fixed by a metallic stem introduced through the cavities of the cervix and body of the organ. This metallic stem is, as is well known, connected by a vaginal stem with additional metallic framework applied over the pubis. This last, aided by the support afforded to the other parts of the instrument by the vagina and uterus, maintains the whole *in situ*. The difficulty, then, of retention in a replaced position is overcome in this manner. But it remains to be seen whether the use of the instrument affords the advantages which may at first sight be expected from it.

The instrument maintains the uterus in a fixed, and therefore an unnatural position. In many females its introduction and retention are accompanied with so much pain that its use is impossible. Not to speak of the physical annoyance to the wearer, the instrument is necessarily a source of constant irritation to the mucous membrane of the vagina and uterus, inducing leucorrhœa, ulceration of the vagina and cervix, uterine catarrh, and profuse and frequent menstruation, in most cases where its use has been continued above a few days. Besides these results, the instrument is occasionally the cause of inflammation and abscess in the deep-seated generative organs. But the most serious objection to the use of these instruments is founded on a consideration of the causes of displacement. The presence of the pessary is not favourable to the disappearance of the relaxation of the vagina, and the presence of the intra-uterine stem in the womb cannot fail to produce or maintain the engorged or hypertrophied condition of that organ, which is one of the most frequent causes of displacement. In accordance with these views we find Dr Bennet,[1] when speaking of the treatment of inflammation of the uterus accompanying retroversion, says that "it is the inflammatory disease that requires to be treated. If the contrary opinion (he adds) prevails now with some practitioners, it is because they are under the influence of erroneous theoretical opinions. Overlooking the real disease, they merely treat the imaginary one, and thus do more harm than good. . . . . What proves retroversion of the uterus to be merely an epiphenomenon in the class of cases to which I am now alluding,—those in which it is accompanied by some inflammatory condition,—is, that when the latter is thoroughly cured, all morbid symptoms disappear, without any therapeutic means having been directed to the retroversion ; and that, in very many cases, the uterus gradually resumes, partly or entirely, its natural position. But, even if it does not, the circumstance is of little or no consequence."

Entirely opposite opinions have been expressed by Drs

[1] On Inflammation of the Uterus. Third Ed., p. 316.

Simpson and Valleix, and have led them to recommend the medical treatment of cases of displacement. These authors agree with Desormeaux in regarding the congestion and hypertrophy of the uterus which so frequently accompany displacement, as being more frequently the effects than the cause of the retroversion,[1] and M. Valleix goes the length of asserting that under the use of the intra-uterine pessary he has observed the uterine enlargement to diminish.

Such opinions are evidently opposed to the entire train of argument followed by me in this discussion, and I shall therefore not weary the reader by recapitulation. I shall only observe that cases of displacement, of whatever kind, have been in very numerous instances deprived of all their painful symptoms, by treatment directed solely against the uterine inflammatory engorgement, and that with or without the disappearance of the displacement; further that cases of displacement caused by uterine hypertrophy or vaginal relaxation, or both, abound without any symptoms whatever, and without any inflammatory engorgement and its attendant painful phenomena being induced.

The use of intra-uterine pessaries has been so highly recommended, in the treatment of the anterior and posterior displacements, by Drs Simpson, Valleix, Rigby, Protheroe Smith, and others, that it demands the most careful consideration. Abundant experience shews that these instruments may be worn for long periods, in many cases, without compromising the safety or even the general health of the patient. But it is another question to decide whether their use is followed by cure. Some of these authors maintain, with Dr Simpson, that the uterine congestion and hypertrophy which coexist with the displacement are most frequently the result of the malposition, and require for their successful treatment that the malposition be first of all rectified. Others, with M. Valleix, holding the same views, believe that the uterine engorgement and hypertrophy may be diminished by the use of the instru-

1 "More frequently (says Dr Simpson) they (congestion and hypertrophy of the uterus) are the effects of the retroversion." Dublin Quarterly Journal, May 1848.

ments,—a doctrine which I am convinced, on theoretical and practical grounds, to be wrong. M. Valleix's own experience, indeed, goes far to confirm this. For we find in his cases, that after removing the instruments, if the displacement backwards or forwards were rectified, it was only to be supplanted by displacement downwards. After " redressement," says M. Valleix, " there remains a certain amount of depression."[1] And again we find this author stating that after the removal of the instrument a certain amount of engorgement remains, the removal of which is necessary for the relief of the original symptoms. " Then[2] (says he) the uterus, becoming smaller, remounts to the place which it ought normally to occupy, and there remains no trace of the uterine lesion. The diminution of volume of the uterus under the influence of its new position takes place generally sufficiently rapidly; but in cases where the engorgement was very great, four, five, and six months have been necessary for obtaining this desirable result." " The proof (he properly adds) that in this case the cure is really complete, is the cessation of the pains and of all the other general or functional symptoms by which the malady made itself known."[3]

If we further remember that M. Valleix's cases were poor women coming into hospital with chronic inflammatory uterine complaints, that in hospital they enjoyed good general medical treatment, diet, and regimen, with the advantages of continued recumbency, it will be difficult not to conclude that

[1] Deviations Uterines, p. 166. [2] Ibid., p. 167.

[3] In some cases very little is required to remove the uterine displacement, as is well illustrated in the following instance which was lately under my care. The lady had for a long time suffered from slight pelvic uneasiness referable to uterine engorgement. While attending on her sister in a southern country she had to undergo much more than usual fatigue, especially in standing and walking. She very soon found that this had aggravated her former symptoms, and came to Edinburgh for advice. The uterus was considerably enlarged, tender to the touch, heavy, and completely retroverted. By means of a silver probe I replaced the womb in its standard position. I enjoined the use also of the vaginal douche of cold water in the morning, and an injection of a weak astringent lotion in the evening. Next day I found that she had got up after my visit; the uterus was again retroverted. I again replaced it, and enjoined the recumbent posture for three days. After this time it continued in its natural position.

the cases would have reaped as much advantage from these alone without the instruments,—especially if we observe that in these cases the instruments produced the ordinary amount of inconvenience and injury attending their use, that after their use the symptoms for the most part remained, and ultimately were relieved by the ordinary treatment of chronic uterine inflammation.

My own experience as to the curative effects of these instruments has not been favourable to their use. In many cases, especially those characterized by vaginal relaxation, the displacement has returned as soon as the instrument was removed. A case of this kind was lately under my care, where for very aggravated symptoms of chronic uterine irritation, with retroversion and extreme vaginal relaxation or paralysis, the intra-uterine pessary was tried on several occasions. During its use none of the symptoms were relieved, but the reverse. On the last occasion it was retained with comparatively little annoyance for ten weeks, but immediately on its removal the displacement returned In other cases where vaginal relaxation was not so strongly marked, the displacement may have continued rectified, but only for a short time, and that without corresponding relief of symptoms.

Cases, however, do occur where the displacement continues rectified after the instrument has been retained for a longer or shorter time; such cases are however rare, and do not belong to that class of cases of chronic uterine disease which forms almost the entire category of cases difficult of cure, with or without these instruments.

The cases curable by pessary may be those of uterine softening and atrophy, in which the irritation induced by the instrument may be sufficient to produce engorgement or irritation, sufficient to prevent the recurrence of flexion or other such displacement, after the instrument's removal.

Before leaving the consideration of the use of these pessaries, I must state that there can be no doubt cases have occurred in which their use has been beneficial. From what has already been stated it is evident that they can be of no great advantage to the great mass of cases of displacement, whatever may

be the cause. But I have seen examples, and heard of more, where irritation of the rectum, and still more of the bladder, concurrent with displacement, have been so great as to render their relief by removing the pressure of the uterus a great boon—even at the expense of the inconvenience and irritation induced by the instrument. That there may be other peculiar circumstances under which a careful trial of such instruments is justifiable, is quite possible, but at present no farther precise indications for their use can be given. M. Valleix[1] ascribes the general symptoms of displacement to the pressure of the uterus upon the neighbouring organs, because, says he, they are relieved on rectifying the organ. But there are good reasons for rejecting the premises as well as the conclusion.

Cases of uterine disease complicated with displacement are of various kinds. In discussing the symptoms (see p. 337) we have divided them into two great classes,—first, those characterized by relaxation of the vagina ; and, secondly, those characterized by uterine enlargement. In practice, however, the characteristics of these two classes are often found combined. And in a therapeutic point of view, cases of uterine disease with displacement admit of a simple classification, viz., into those that are curable without much delay or difficulty, and those which are not so. In speaking of a cure in such cases, it is not to be supposed that we imply rectification of the position of the uterus, but only the dispelling of the painful symptoms.

The obstinate cases which are so frequently met with, searching for relief in the various metropolitan cities of this and other countries are well known to most obstetricians. In some the main disease is menorrhagia or dysmenorrhœa, in others the chief complaint is sterility, in others recurrent abortion, and in a large class there is inability to walk, with aggravated lumbar and pelvic pains. In the worst of these patients there is generally found in addition a shattered state of the general health. In this class of cases, if the uterine disease is the chief malady, we generally find the body of the

[1] Deviations Uterines, p. 152.

womb in a state of chronic inflammatory engorgement, and often also of hypertrophy, and the vagina in a state of relaxation. They frequently can be traced to an incomplete recovery from abortion or delivery at the full time, or to a recurrence of abortions, or to pregnancy and delivery repeated with short intervals in women whose constitutional strength is unfit for the task.

The cases which admit of rapid amelioration are generally of recent occurrence, and owe their origin to an incomplete recovery after abortion or confinement, to temporary disorder of the menstrual function, but most frequently to disease of the upper part of the vagina, or cervix-uteri, parts which are easily accessible for treatment, and whose affections are comparatively easily removed.

It would occupy too much space to enter upon the various methods of treatment, applicable to the numerous different conditions of the vagina and uterus, connected with displacement. Our object has been to attempt a correct appreciation of the value of the phenomenon of displacement in these cases, and to point out its real causes. Besides, the treatment of leucorrhœa in its various forms has of late years been so copiously and ably described, that no apology is required for silence on the subject.

In the course of this article we have discussed all the minor displacements together, believing that any separation of them would lead only to artificial distinctions, and to useless repetition. We have already stated that the aggravated cases of displacement are generally retroversions or retroflexions, and attempted to explain why hypertrophy of the body of the womb should lead to this form of dislocation. Before concluding, we shall make a few remarks upon the treatment of the chronic inflammatory condition which lies at the foundation of the malady.

In this, as in many other chronic complaints, the treatment resorted to must be modified, changed, given up, and resumed, according to a variety of circumstances, especially the state of the constitutional strength and of the general health. In the case under consideration, nothing is more frequent

than an extremely depraved and depressed state of the latter, revealing itself in all the varied forms of dyspepsia and hysteria. The treatment applicable to these various states we must entirely omit. But it must never be forgotten that the restoration of the general health forms one of the most important elements in successful treatment, and regard must constantly be had to it in pursuing therapeutic plans in regard to the uterine disease. This remark holds good especially in regard to position and bleeding. The former is one of the most valuable palliatives of the complaint, and contributes greatly also to cure. Many females suffer so much from the erect position in this disease as to be unable to maintain it with comfort, even for the shortest time. In such cases the recumbent attitude is not only expedient but necessary. In all cases it should be resorted to as much as possible. The chief effect of it is to relieve vascular tension. Its influence in this respect is abundantly proved in cases of another description, when there is a tendency to hemorrhage. In these the erect position always aggravates or induces the bleeding. Moreover, it will be remembered, in illustration, that the "getting up" after delivery is generally accompanied by the appearance of colour in the discharges. The only danger in regard to recumbency is, that it may be continued to the injury of the general health, from the want of exercise and of exposure to the open air.

For the purpose of removing inflammatory engorgement two of the most useful remedies are counter-irritation and local bleeding. The former may be effected by means of any of the ordinary irritant ointments or liniments. The use of large cantharides blisters is contraindicated, on account of its tendency to induce vesical irritation. The means which have been most useful in my hands are the croton-oil liniment and tartar emetic ointment. By means of these a pustular eruption or issue may be kept up over the hypogastrium for a length of time.

In cases where the chief morbid phenomenon is the inflammatory uterine engorgement, nothing gives more re-

lief or is more beneficial than the use of local bleeding. This is best done by applying leeches directly to the uterus through the speculum, or to the vagina by an ordinary leeching tube. The misfortune in regard to this is, that from the first the patient may be unable to bear loss of blood; or partly from the loss of blood by the repeated leeching, partly from imperfect digestion, a state of anemia is induced before a cure is effected, and thus the practitioner is deprived of his most valuable resource. To prevent this it is necessary to inculcate the propriety of taking as little blood as possible at one time, for very little is necessary to disgorge the vessels and produce relief. It is necessary also to prevent the female from assuming the erect position for some time after the bleeding. Practitioners, I am sure, frequently err in applying a large number of leeches, and after their removal encouraging the bleeding by placing the patient in a sitting position over hot water, or in it, In this way I have sometimes seen women prostrated by the loss of blood at a single bleeding. Now the repetition of the bleeding in the intervals of the menstrual periods is useful, and to allow of this a small bleeding is sufficient, by means of a couple of leeches. Generally, after these come away, several cloths are required for the spontaneous discharge from the leech-bites, and this amount is fully sufficient. In lieu of the internal we may resort to external leeching in the perineum or groins.

Vaginal injections are also often of service. They may be emollient and sedative, to remove irritation and pain. But they are of more service against the vaginal relaxation. For this, mild astringent lotions of solutions of alum, or of sulphates of zinc, or acetate of lead, may be freely used with an ordinary Reid's syringe. But nothing is more serviceable than the vaginal douche of cold water used daily (avoiding the proximity of the menstrual period), and for ten or fifteen minutes at a time.

Sometimes it is useful to establish an issue upon the cervix uteri by deep cauterization with potassa fusa, or potassa cum calce. The derivative action of this upon the body of the uterus is sometimes effectual when other means fail.

M. Amussat and Dr Simpson have recommended the formation of the issue upon the posterior lip of the uterus, for the mechanical benefits expected from the contraction of the resultant cicatrix. The internal remedies of most service in cases of chronic uterine engorgement and inflammation are iodine and mercury. The latter has been especially recommended by Dr Oldham in the form of minute doses of the bichloride continued for some time. The former has received the special commendation of Dr Ashwell, who uses it also locally, both to the os uteri and over the hypogastrium, in the form of ointment or tincture.

Lastly, the abdominal supporter of Hull is often of great service, relieving the pelvis of much of the weight and pressure of the intestines, and diminishing or removing the painful sensations of bearing down,—a result which is promoted by the upward pressure of the perineal pad generally attached to the instrument, By wearing this support, women often recover not only feelings of comfort and security, but the ability to take healthful exercise.

The occurrence of pregnancy is often a cause of anxiety in cases of chronic uterine disease such as we have been describing, from the danger of abortion occurring. But if the female goes to the full time, and is carefully managed after confinement, it often forms the happy termination of her sufferings.